Claims

1. A blow head mechanism for blowing a parison in a blow mold of a blow station of an I.S. machine and cooling the blown parison so that a bottle will be formed which can be removed from the blow station, comprising

a blow head assembly,

support means for supporting said blow head assembly,

first displacement means for displacing said support means to displace said blow head assembly between a remote up position and an advanced down position,

said blow head assembly including a blow tube selectively displaceable between an up position and a down position,

second displacement means for displacing said blow tube from the up position down to the down position and then back up to the up position,

said second displacement means including a profiled actuator including a displacement profile for controlling the displacement of the blow tube from the up position to the down position

the displacement profile being selectively defined to correlate with the cooling requirements of the bottle as the blow tube is displaced from the up position to the down position.

2. A blow head mechanism for blowing a parison in a blow mold of a blow station of an I.S. machine and cooling the blown parison so that a bottle will be formed which can be removed from the blow station according to claim 1, wherein the profiled actuator of said second displacement means further includes a displacement profile for controlling the displacement of the blow tube from the down position to the up position

the displacement profile being selectively defined to correlate with the cooling requirements of the bottle as the blow tube is displaced from the down position to the up position.

3. A blow head mechanism for blowing a parison in a blow mold of a blow station of an I.S. machine and cooling the blown parison so that a bottle will be formed which can be removed from the blow station according to claim 2, wherein the blown parison has an upper neck portion and a lower body portion and wherein there is less heat to be removed from the up position to the location where the upper neck portion meets the lower body portion than from the location where the upper neck portion meets the lower body portion to the bottom of the blown parison and the profile displaces the blow tube from the up position to the position where the upper neck portion meets the lower body portion at an average velocity higher than the average velocity at which the profile displaces the blow tube from the location where the upper neck portion meets the lower body portion to the bottom of the blown parison.

4. A blow head mechanism for blowing a parison in a blow mold of a blow station of an I.S. machine and cooling the blown parison so that a bottle will be formed which can be removed from the blow station according to claim 1, wherein said displacement profile will cause said blow tube to dwell at the bottom of the blown parison for a selected period of time.

5. A blow head mechanism for blowing a parison in a blow mold of a blow station of an I.S. machine and cooling the blown parison so that a bottle will be formed which can be removed from the blow station according to claim 3, wherein the displacement profile will displace the blow tube from the down position to the location where the upper neck portion meets the lower body portion at said average lower velocity and will displace the blow head from the location where the upper neck portion meets the lower body portion to the up position at said higher average velocity.